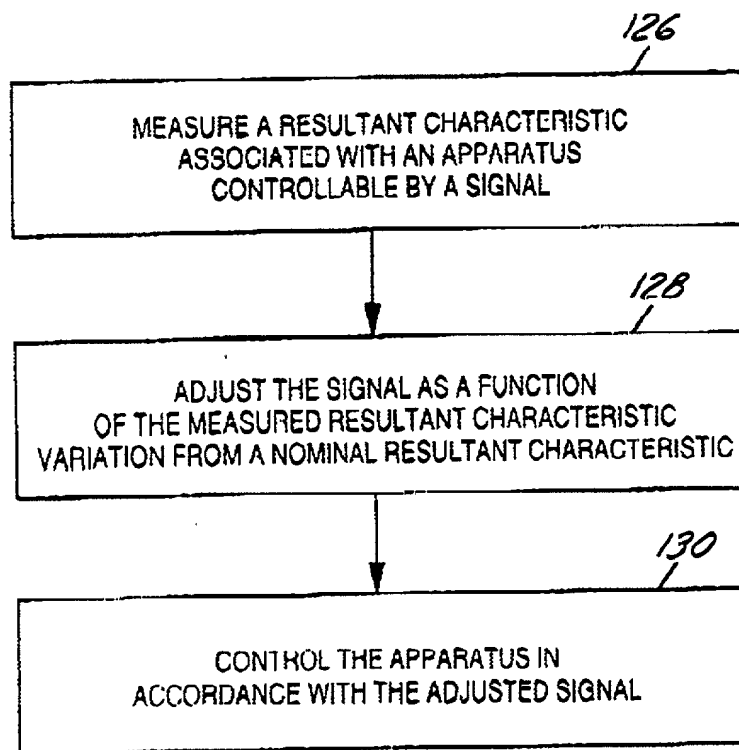
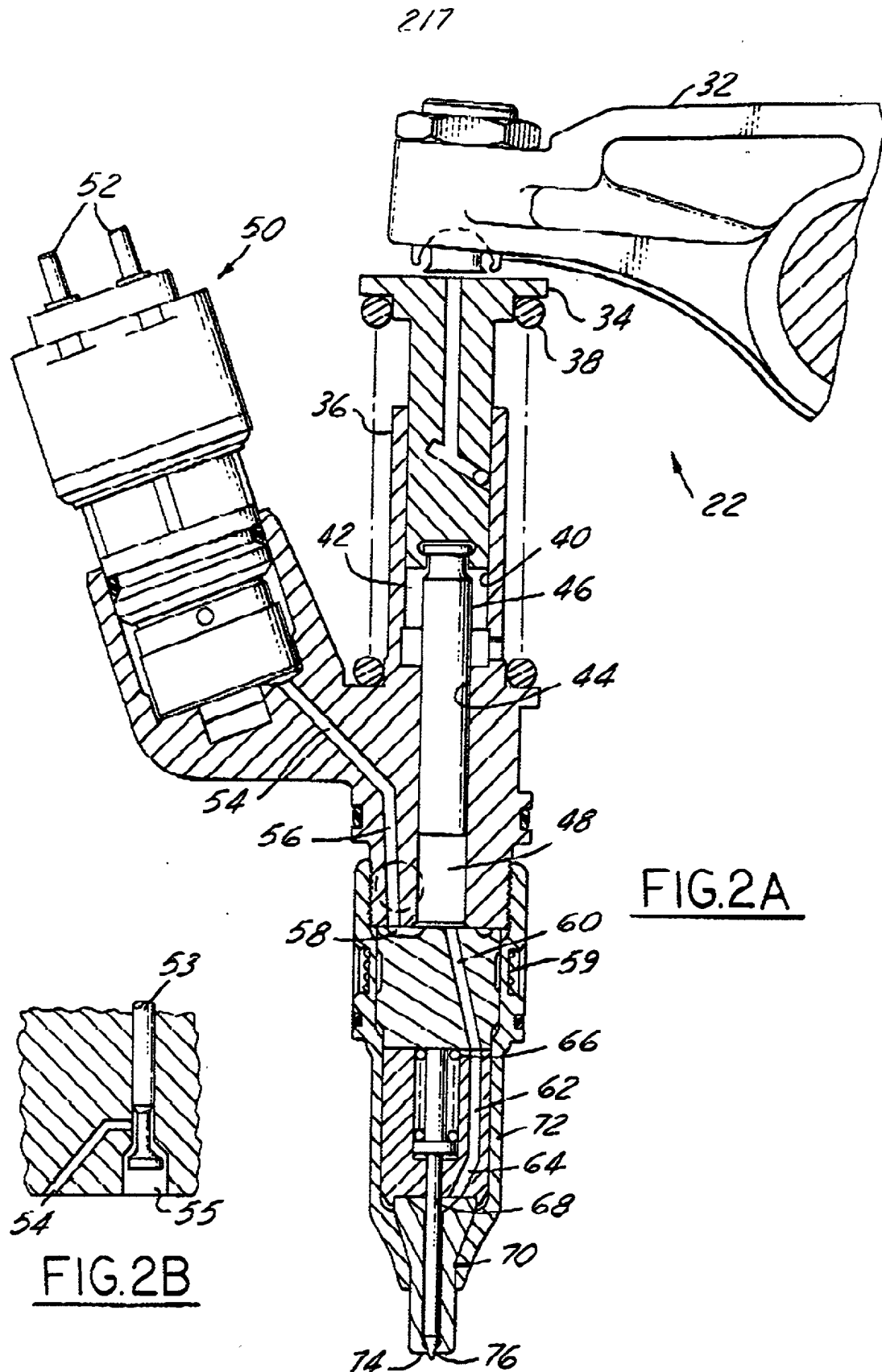
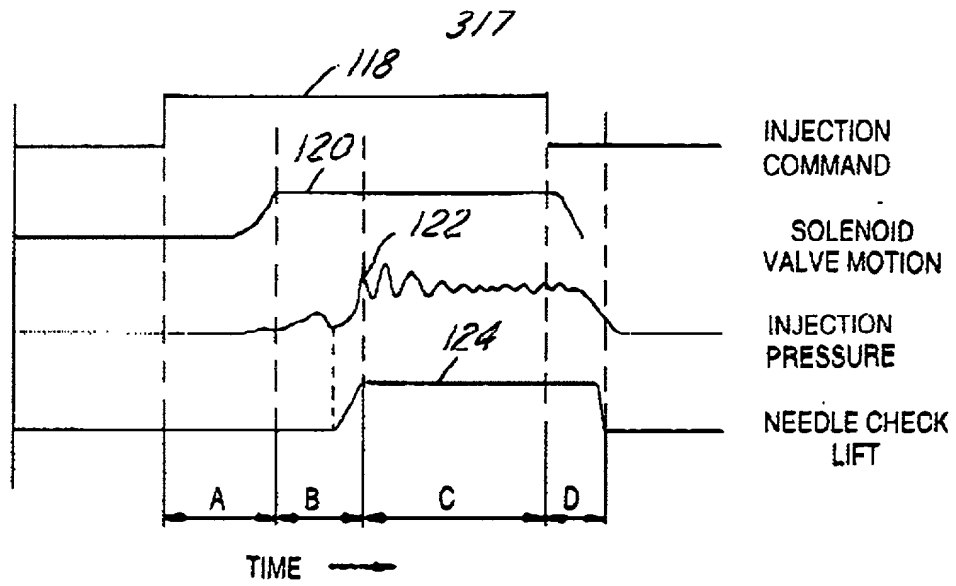
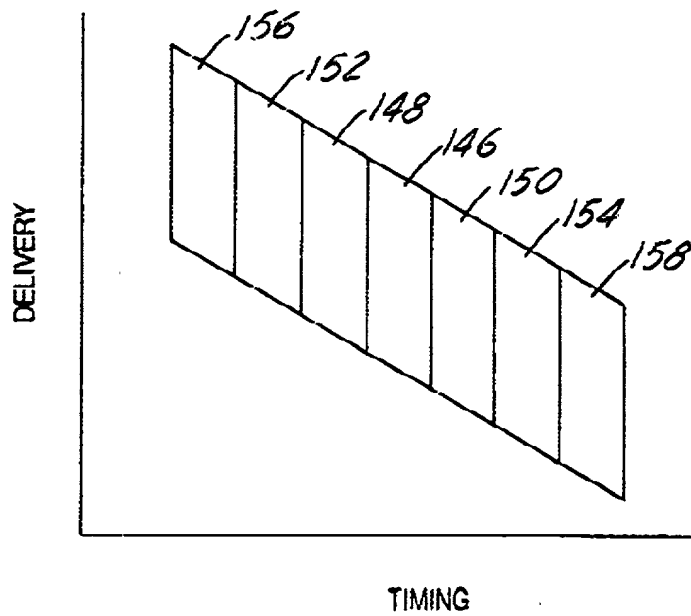
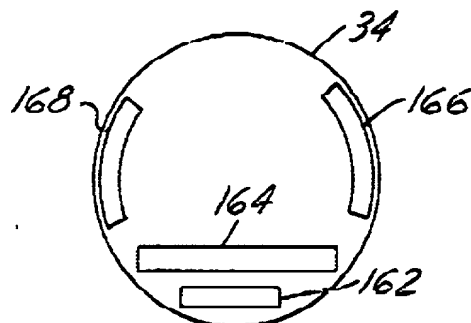
FIG. 1FIG. 4

668250-0222650



668250 02/22/99

FIG. 3FIG. 5FIG. 6

65250 022260

4/7

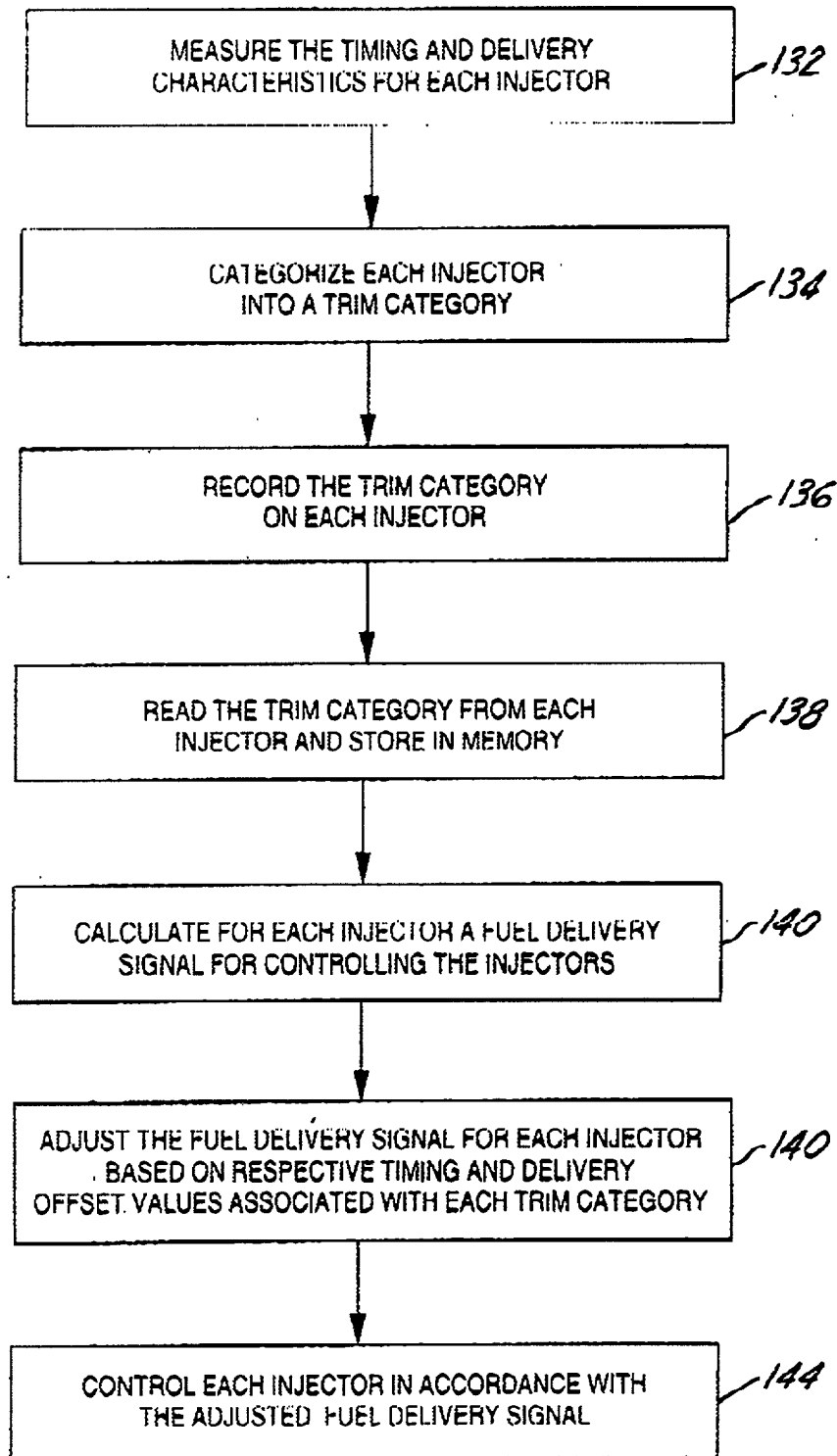
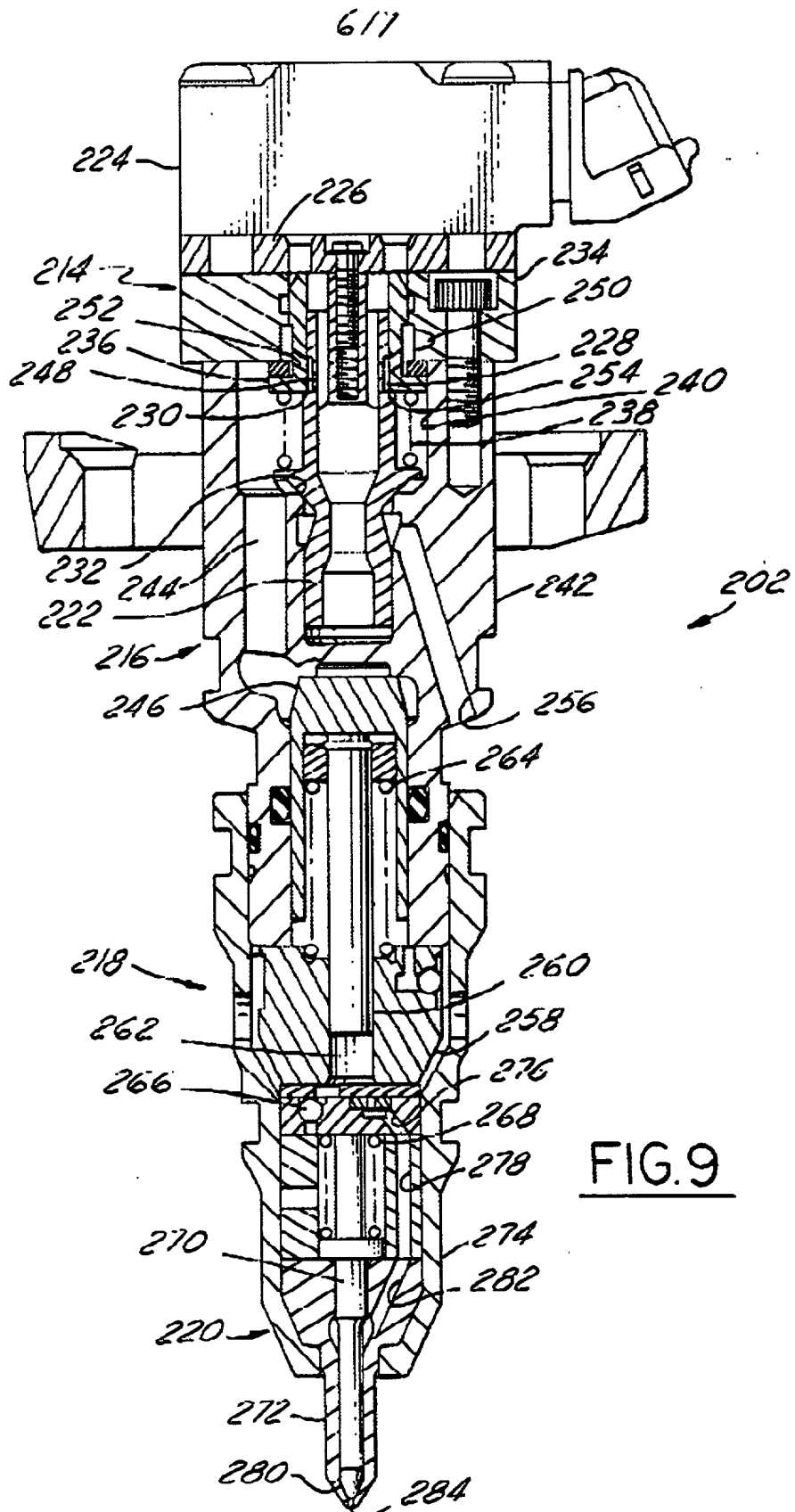
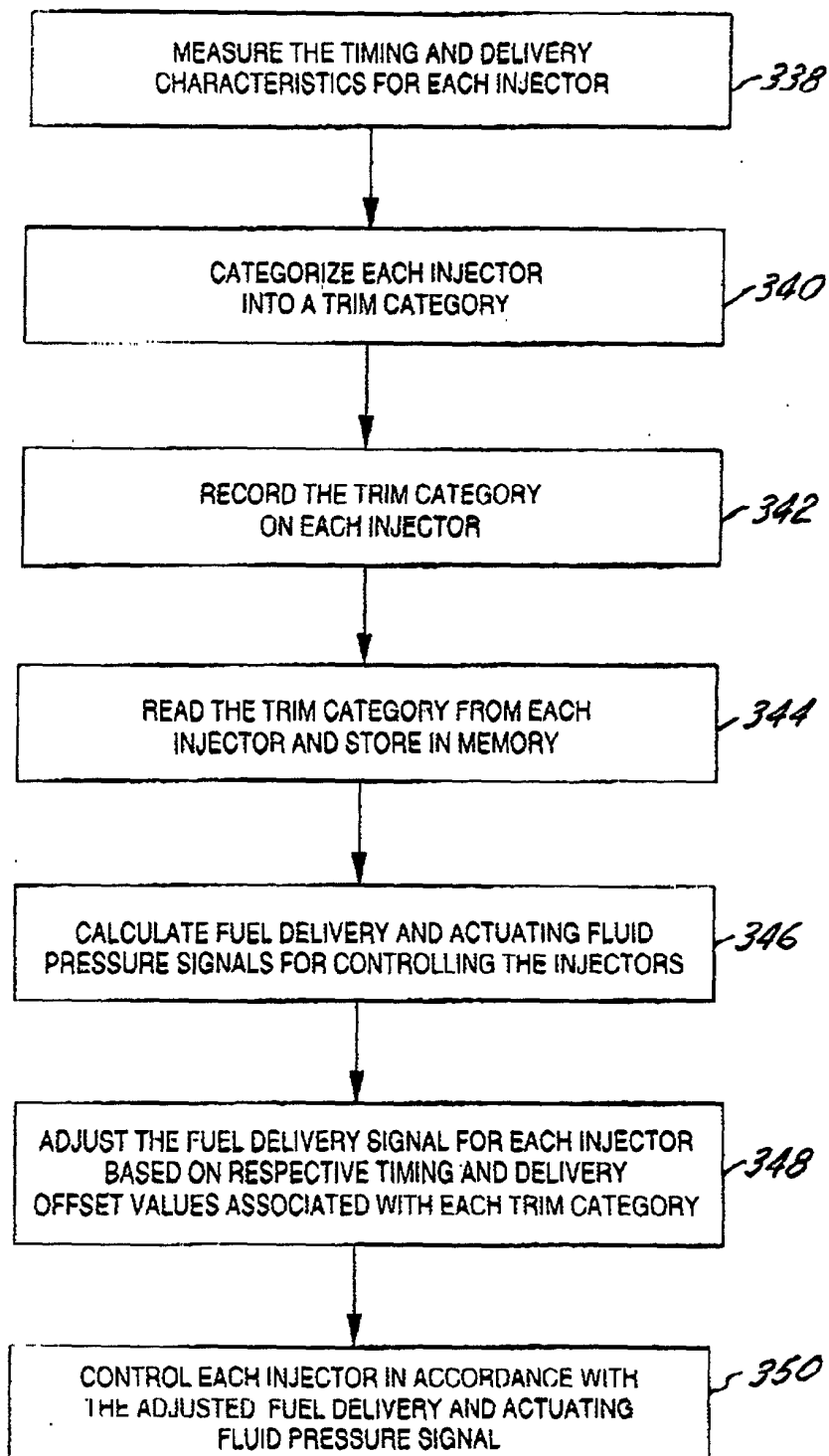
FIG. 7

Figure 1 consists of 10 subplots, labeled (a) through (j), each showing the percentage of total catch (Y-axis, 0 to 100) against the time of day (X-axis, 0000 to 2400). The species are: (a) Atlantic halibut, (b) Atlantic cod, (c) Atlantic herring, (d) Atlantic mackerel, (e) Atlantic plaice, (f) Atlantic salmon, (g) Atlantic sprat, (h) Atlantic whiting, (i) European eel, and (j) European sea bass. The catch patterns vary significantly: (a) peaks in the morning; (b) peaks in the evening; (c) peaks in the morning; (d) peaks in the evening; (e) peaks in the morning; (f) peaks in the evening; (g) peaks in the morning; (h) peaks in the evening; (i) peaks in the morning; and (j) peaks in the evening.



7/7

FIG.10

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)
Shinogle, Ronald D.) Art Unit: 3747
Application No. 09/322,770) Examiner: Not Assigned
Filed: May 28, 1999) Paper No.
For: Method And Structure For)
Controlling An Apparatus.)
Such As A Fuel Injector,)
Using Electronic Trimming)
Attorney Docket No. 87-146)

Peoria, Illinois 61629-6490
April 12, 2000

Assistant Commissioner for Patents
Washington, D.C. 20231

Reissue Application Declaration By The Inventors

Sir:

CERTIFICATE OF MAILING

I hereby certify that this
correspondence is being deposited
with the United States Postal
Service as first class mail in an
envelope addressed to: Assistant
Commissioner for Patents,
Washington, D.C. 20231

on April 12, 2000 (Date)

Larry G. Cain

Attorney or Agent

Signature

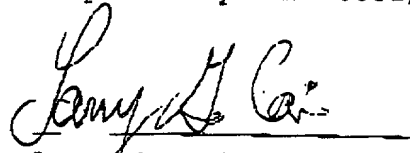
Date: April 12, 2000

56250-022260

-2-

The last of the "DECLARATION AND POWER OF ATTORNEY" as received in this office today, March 28, 2000, the Yasser A. Charif DECLARATION AND POWER OF ATTORNEY and the DECLARATION AND POWER OF ATTORNEY for Richard A. DeKeyser, Vernon R. Smith and Stephen F. Glassey are being forwarded in response to the Notice Of Incomplete Reply dated, November 19, 1999. The applicants has enclosed the "Declaration And Power Of Attorney" for the inventors of record. The applicants have identified the original patent number and grant date for which a reissue patent is sought. The applicants have further clarified the reason a reissue patent has been sought, i.e. patentee claiming more or less than he had the right to claim in the patent.

Respectfully submitted,



Larry G. Cain

Registration No. 31, 150

Caterpillar Inc.

Telephone: (309) 675-4922

Facsimile: (309) 675-1236

#7-1462 Inventor Declaration.doc

663250-0422660



PTO/SB/51 (12-97)
Approved for use through 9/30/00. OMB 0851-0033
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

REISSUE APPLICATION DECLARATION BY THE INVENTOR

Docket Number (Optional)

87-146R

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are stated below next to my name.

I believe I am ~~the original first and sole inventor (if only one name is listed below)~~ or an original, first and joint inventor (if plural names are listed below) of the subject matter which is described and claimed in patent number 5,634,448, granted June 3, 1997, and for which a reissue patent is sought on the invention entitled METHOD AND STRUCTURE FOR CONTROLLING AN APPARATUS, SUCH AS A FUEL INJECTOR, USING ELECTRONIC TRIMMING, the specification of which

☐ is attached hereto.

☒ was filed on May 28, 1999 as reissue application number 09 / 322,770 and was amended on _____ (if applicable)

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I verily believe the original patent to be wholly or partly inoperative or invalid, for the reasons described below. (Check all boxes that apply.)

- ☐ by reason of a defective specification or drawing.
- ☒ by reason of the patentee claiming more or less than he had the right to claim in the patent.
- ☐ by reason of other errors.

At least one error upon which reissue is based is described as follows:

Not claiming an apparatus as defined in new claim 32.

[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 0.5 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(REISSUE APPLICATION DECLARATION BY THE INVENTOR, page 2)

Docket Number (Optional)
87-146R

All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant. As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Name(s)	Registration Number
Larry G. Cain	31,150
Joseph W. Keen	28,432
Robert J. Hampsch	36,155
Kevin M. Kercher	33,408
R. Carl Wilbur	36,056

Correspondence Address: Direct all communications about the application to:

☒ Customer Number

9061

OR

Type Customer Number here

Place Customer Number Bar
Code Label here

<input checked="" type="checkbox"/> Firm or Individual Name	Caterpillar Inc.				
Address	Patent Department, AB6490				
Address	100 NE Adams ST.				
City	Peoria	State	IL	ZIP	61629-6490
Country	USA				
Telephone	(309) 675-4922	Fax	(309) 675-1236		

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

Full name of sole or first inventor (given name, family name)

Stephen F. Glassey

Inventor's signature

Residence

Gulnare, Colorado 81042

Date

4/5/2000

Post Office Address

21750 Spirit Mountain Drive

Citizenship

US

Full name of second joint inventor (given name, family name)

Inventor's signature

Date

Residence

Citizenship

Post Office Address

Full name of third joint inventor (given name, family name)

Inventor's signature

Date

Residence

Citizenship

Post Office Address

☐ Additional joint inventors are named on separately numbered sheets attached hereto.



APR. 11. 2000 10:37PM

INTELLECTUAL PROPERTY

NO. 2691 P. 6/9

PTO/SB/51 (12-97)
Approved for use through 9/30/00. OMB 0851-0033
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(REISSUE APPLICATION DECLARATION BY THE INVENTOR, page 2)

Docket Number (Optional)

87-146R

All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant. As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Name(s) Larry G. Cain Registration Number 31,150Joseph W. Keen 28,432Robert J. Hampsch 36,155Kevin M. Kercher 33,408R. Carl Wilbur 36,056

Correspondence Address: Direct all communications about the application to:

☒ Customer Number9061

OR

Type Customer Number here

Place Customer Number Bar
Code Label here☒ Firm or
Individual NameCaterpillar Inc.

Address

Patent Department, AB6490

Address

100 NE Adams ST.

City

Peoria

State

IL

ZIP

61629-6490

Country

USA

Telephone

(309) 675-4922

Fax

(309) 675-1236

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

Full name of sole or first inventor (given name, family name)

Richard A. De Keyser

Inventor's signature

Residence

Edelstein, Illinois 61526

Date

4-10-00

Post Office Address

614 Horsehoe Tr.

Citizenship

US

Full name of second joint inventor (given name, family name)

Inventor's signature

Date

Residence

Citizenship

Post Office Address

Full name of third joint inventor (given name, family name)

Inventor's signature

Date

Residence

Citizenship

Post Office Address

☐ Additional joint inventors are named on separately numbered sheets attached hereto.



APR. 11. 2000 10:37PM

INTELLECTUAL PROPERTY

NO. 2691 P. 7/9

PTO/SB/51 (12-97)

Approved for use through 9/30/00. OMB 0651-0033
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(REISSUE APPLICATION DECLARATION BY THE INVENTOR, page 2)

Docket Number (Optional)

87-146R

All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant. As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Name(s)	Registration Number
Larry G. Cain	31,150
Joseph W. Keen	28,432
Robert J. Hampsch	36,155
Kevin M. Kercher	33,408
R. Carl Wilbur	36,056

Correspondence Address: Direct all communications about the application to:

☒ Customer Number

9061

OR

Type Customer Number here

Place Customer Number Bar
Code Label here☒ Firm or
Individual Name

Caterpillar Inc.

Address

Patent Department, AB6490

Address

100 NE Adams ST.

City

Peoria

State

IL

ZIP

61629-6490

Country

USA

Telephone

(309) 675-4922

Fax

(309) 675-1236

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

Full name of sole or first inventor (given name, family name)

Vernon R. Smith

Inventor's signature

Vernon R. Smith

Residence

Peoria, IL 61615

Date

4/6/00

Post Office Address

708 Mossville Road

Citizenship

US

Full name of second joint inventor (given name, family name)

Inventor's signature

Date

Residence

Citizenship

Post Office Address

Full name of third joint inventor (given name, family name)

Inventor's signature

Date

Residence

Citizenship

Post Office Address



Additional joint inventors are named on separately numbered sheets attached hereto.



APR. 11. 2000 10:37PM

INTELLECTUAL PROPERTY

Approved for filing through SFC NO. 26911 (12P. 8/9)
Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(REISSUE APPLICATION DECLARATION BY THE INVENTOR, page 2)

Docket Number (Optional)

87-146R

All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant. As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Name(s)	Registration Number
Larry G. Cain	31,150
Joseph W. Keen	28,432
Robert J. Hampsch	36,153
Kevin M. Kercher	33,408
R. Carl Wilbur	36,056

Correspondence Address: Direct all communications about the application to:

☒ Customer Number

9061

OR

Type Customer Number here

Place Customer Number Bar
Code Label here☒ Firm or
Individual Name

Caterpillar Inc.

Address

Patent Department, AB6490

Address

100 NE Adams ST.

City

Peoria

State

IL

ZIP

61629-6490

Country

USA

Telephone

(309) 675-4922

Fax

(309) 675-1236

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

Full name of sole or first inventor (given name, family name)

Yasser A. Charif

Inventor's signature

Yasser Charif

Residence

Farmington Hills, Michigan 48331

Date

4-11-00

Post Office Address

37655 Blossom Lane

Citizenship

US

Full name of second joint inventor (given name, family name)

Inventor's signature

Date

Residence

Citizenship

Post Office Address

Full name of third joint inventor (given name, family name)

Inventor's signature

Date

Residence

Citizenship

Post Office Address

☐ Additional joint inventors are named on separately numbered sheets attached hereto.RECEIVED
PATENT DEPT.

(Page 2 of 2)

APR 11 2000

CATERPILLAR INC.

APR 11 2000 11:43

3096751236

PAGE.02



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(REISSUE APPLICATION DECLARATION BY THE INVENTOR, page 2)

Docket Number (Optional)

All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant. As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Name(s)	Registration Number
Larry G. Cain	31,150
Joseph W. Keen	28,432
Robert J. Hampsch	36,155
Kevin M. Kercher	33,408
R. Carl Wilbur	36,056

Correspondence Address: Direct all communications about the application to:

☒ Customer Number

9061

OR

Type Customer Number here

Place Customer Number Bar
Code Label here☒ Firm or
Individual Name

Caterpillar Inc.

Address

Patent Department, AB6490

Address

100 NE Adams ST.

City

Peoria

State

IL

ZIP

61629-6490

Country

USA

Telephone

(309) 675-4922

Fax

(309) 675-1236

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

Full name of sole or first inventor (given name, family name)

Renaud D. Shinogle

Inventor's signature

Renaud D. Shinogle

Residence

Peoria, Illinois

Date

4-6-00

Post Office Address

1023 W. Centennial Drive

Citizenship

US

Full name of second joint inventor (given name, family name)

Inventor's signature

Date

Residence

Citizenship

Post Office Address

Full name of third joint inventor (given name, family name)

Inventor's signature

Date

Residence

Citizenship

Post Office Address

☐ Additional joint inventors are named on separately numbered sheets attached hereto.



#4

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application for Reissue)
Of U.S. Patent No. 5,634,448)
RONALD D. SHINOGLA, ET AL) Art Unit: Unassigned
Application No. 09/322,770) Examiner: Unassigned
Issued: June 3, 1997) Paper No. 10
For: METHOD AND STRUCTURE)
FOR CONTROLLING AN)
APPARATUS, SUCH AS A)
FUEL INJECTOR, USING)
ELECTRONIC TRIMMING)
Attorney Docket No. 87-146 R)

Peoria, Illinois 61629-6490

October 28, 1999

Honorable Commissioner of
Patents and Trademarks
Washington, D.C. 20231

ASSOCIATE POWER OF ATTORNEY

Sir:

CERTIFICATE OF MAILING

I hereby certify that this correspondence
is being deposited with the United States
Postal Service as first class mail in an
envelope addressed to: Assistant
Commissioner for Patents, Washington,
D.C. 20231

On October 28, 1999 (Date)

Eric M. Bram

Attorney or Agent

Signature

Date: October 28, 1999

The undersigned hereby appoints Larry G. Cain, Patent Office Reg. No. 31,150 telephone (309) 675-4922, Alan J. Hickman, Patent Office Reg. No. 29,649, telephone (309) 675-4517, and John J. Cheeks, Patent Office Reg. No. 39,628, telephone (309) 675-4280 as an attorney or agent, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected with this application. Please address all correspondence to Larry G. Cain, Caterpillar Inc., Patent Department, AB6490 100 N. E. Adams Street, Peoria, Illinois 61629-6490.

Respectfully submitted,



Eric M. Bram
Registration No. 37,285
Caterpillar Inc.

Telephone: (309) 675-4922
Facsimile: (309) 675-1236
87-146R-associate power